WHAT IS CLAIMED IS:

1. A routing control apparatus for controlling routing in a network including an optical network, the apparatus comprising:

state information obtaining means for obtaining state information regarding the network;

optical edge node specifying means for specifying an egress optical edge node located on the output side of the optical network and an ingress optical edge node located on the input side of the optical network to establish an optical path to a destination address; and

routing means for setting explicitly routes according to destinations to the ingress optical edge node in a network connected to the input side of the optical network.

2. The routing control apparatus according to claim 1, wherein the optical edge node specifying means specifies the egress optical edge node which gives the shortest route to the destination address.

3. The routing control apparatus according to claim 1, wherein the optical edge node specifying means specifies the egress optical edge node and the ingress optical edge node so that a wavelength will be assigned according to communication quality.

4. The routing control apparatus according to claim 1, wherein the routing means explicitly sets a route on the basis of the state of a link in the network connected to the entry side of the optical network.

5. The routing control apparatus according to claim 1, wherein if an optical path established by specifying the egress optical edge node and the ingress optical edge node is judged because of low usage to be redundant, the optical edge node specifying means cancels specification instructions issued to set the optical path and opens the optical path.

6. A routing control method for controlling routing, the method comprising the steps of:

obtaining state information regarding a network;

specifying an egress edge node located on the output side of a core network and an ingress edge node located on the input side of the core network to establish a path to a destination address; and

setting explicitly routes according to destinations to the ingress edge node in an edge network connected to the input side of the core network.

7. The routing control method according to claim 6, wherein the egress edge node which gives the shortest

route to the destination address is specified.

8. The routing control method according to claim 6, wherein the egress edge node and the ingress edge node are specified so that a label will be assigned to a path according to communication quality.

9. The routing control method according to claim 6, wherein a route is explicitly set on the basis of the state of a link in the edge network.

10. The routing control method according to claim 6, wherein if a path established by specifying the egress edge node and the ingress edge node is judged because of low usage to be redundant, specification instructions issued to set the path are canceled and the path is opened.